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GEOLOGIC APPLICATION  
OF THERMAL INERTIA IMAGING  
USING HCMM DATA

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## INTRODUCTION

The JPL/HCOMM Investigation is a study of the feasibility of using thermal inertia, inferred from remotely sensed temperature data, to complement Landsat reflectivity data for reconnaissance geologic mapping and mineral exploration. During the April - June 1978 quarter of this investigation, the analysis of NASA/Ames U-2 data acquired during the February - March 1978 overflights of Death Valley, California was begun.

## PROBLEMS

The data acquired during the February - March overflights of Death Valley were found to have geometric distortions due to aircraft roll.

## ACCOMPLISHMENTS

The data from the March, 1978 overflights of Death Valley were judged to be of slightly better quality than the February, 1978 data and therefore, chosen for analysis. A computer program was developed at JPL to remove from the data the geometric distortions caused by aircraft roll. These data sets from the March day/night overflights are now in the process of being registered.

## SIGNIFICANT RESULTS

None.

## PRESENTATIONS/PUBLICATIONS

None

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PROGRAM FOR NEXT REPORTING INTERVAL

Ground truth measurements will be taken during HCMH Satellite overpasses of test sites. Analysis of previously obtained aircraft and ground truth data will continue. Aircraft and satellite data will be processed as it becomes available.

RECOMMENDATIONS

None.

FUNDS EXPENDED

Expenditures for April - June 1978:           \$6,393.00

DATA UTILITY

No satellite data has been received as of this date.

CONCLUSIONS

None.

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